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OCUMENTATION PAGE

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1b. RESTRICTIVE MARKINGS

3 DISTRIBUTION / AVAILABILITY OF REPORT

UNLIMITED

2b. DECLASSIFICATION / DOWNGRADING SCHEDULE

4. PERFORMING ORGANIZATION REPORT NUMBER(S)

DOD POP TR/AYD 89-001

5. MONITORING ORGANIZATION REPORT NUMBER(S)

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6a. NAME OF PERFORMING ORGANIZATION

Packaging Division, AED

6b. OFFICE SYMBOL (If applicable)

SMCAR-AEP

7a. NAME OF MONITORING ORGANIZATION

6c. ADDRESS (City, State, and ZIP Code)

U.S. Army ARDEC
Picatinny Arsenal, NJ 07806-5000

7b. ADDRESS (City, State, and ZIP Code)

8a. NAME OF FUNDING / SPONSORING ORGANIZATION

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9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER

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10. SOURCE OF FUNDING NUMBERS

PROGRAM ELEMENT NO.	PROJECT NO.	TASK NO.	WORK UNIT ACCESSION NO.

11. TITLE (Include Security Classification)

Performance Oriented Packaging Testing of M86 APERS MINE Packed 12 per PA19 Metal Ammunition Box, 2 Boxes per Wirebound Box.

12. PERSONAL AUTHOR(S)

William Healy

13a. TYPE OF REPORT	13b. TIME COVERED	14. DATE OF REPORT (Year, Month, Day)	15. PAGE COUNT
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16. SUPPLEMENTARY NOTATION

See attached

17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)
FIELD	GROUP	SUB-GROUP	Performance Oriented Packaging (POP); M86 APERS Mine; PDM; PA19, Metal Ammunition Container; Wirebound Box

19. ABSTRACT (Continue on reverse if necessary and identify by block number)

This report contains the testing and test results performed on the M86 APERS Mine packed 12 per PA19 metal ammunition container, two PA19's per wirebound box for Performance Oriented Packaging certification. In addition, tests were conducted at Rochester Institute of Technology (Report No. DOD POP Hm/JWG/TR 87005) in which steel ammunition containers were loaded with 35 lbs. of lead shot and packaged two per wirebound box. Boxes were dropped 1.2 meters in 5 configurations; top, bottom, long side, short side, corners. The boxes were also compression loaded to 1296 lbs. to satisfy a 3 meter high stacking test. No damage was observed to the boxes after each of the test were completed. (AW)

20. DISTRIBUTION / AVAILABILITY OF ABSTRACT

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21. ABSTRACT SECURITY CLASSIFICATION

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22a. NAME OF RESPONSIBLE INDIVIDUAL	22b. TELEPHONE (Include Area Code)	22c. OFFICE SYMBOL
Steve Ruffini	(201) 724-2515	SMCAR-AEP

DD Form 1473, JUN 86 *Previous editions are obsolete.* SECURITY CLASSIFICATION OF THIS PAGE

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1. DATA SHEET:

Container:

Type: Box

UN Code: 4C
Specification Number: PPP-B-46506
Material: Wood and wire
Capacity: 1167.9 CU. IN
Dimensions: I.D. Inches - 12 1/2 x 12 1/16 x 10 3/8
Tolerance: + 1/8
Closure (Method/Type): Bent wire
Tare Weight: 4.4 lbs.

Product:

Name: Mine, APERS, M86
Drawing Number:
United Nations Number:
United Nations Packing Group:
Physical State: Solid
Amount Per Container: 24

2. BACKGROUND:

This report contains the testing and test results performed on M86 APERS Mine packed (12) twelve per PA19 metal ammunition container, (2) two PA19's per wirebound box in accordance with drawing 9366710 for Performance Oriented Packaging Certification. Tests were performed in accordance with Performance Oriented Packaging test regulations.

3. TEST:

3a) Containers were dropped once each from 2.1 meters (7 feet) in lieu of Un requirements of 1.2 meters (4 feet). The containers were dropped on a 3 inch solid steel plate reinforced by 18 inches of crushed rock in 6 different orientations. The tests were conducted at 3 temperatures (6 total containers were tested). The orientations were as follows:

Top
Bottom
Side
Side 90° off previous
Top Edge
Bottom Edge

The three temperatures were 71° C (160° F), 24°C (75°F) and -51°C (-60°F). Note: this exceeds the UN requirement which is 5 containers dropped once each in 5 orientations (top, bottom, long side, short side, and corner) of four feet and ambient temperature.

3b) Stacking tests were done on similar wood boxes with no damage observed. These results could be found in test report DOD POP HM/JWG/TR 87005, entitled: "Performance Oriented Packaging Testing on Wirebound Box."

4. RESULTS:

The container passed all tests cited in 3a. None of the contents was lost due to spillage or detonation. They are considered safe for international transportation and in accordance with Performance Oriented Packaging regulations.

REFERENCE MATERIAL:

a. United Nations "Transport of Dangerous Goods", Third Edition.
b. Report Number: DOD POP HM/JWG/TR 87005, Title: "Performance Oriented Packaging Testing of Wirebound Box.", D. Goodwin, Rochester Institute of Technology.